

APPARATUS, SYSTEM AND METHOD FOR VALIDATING INTEGRITY OF TRANSMITTED DATA

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ABSTRACT OF THE DISCLOSURE

An apparatus, system and method maintain synchronization of an encryption key stream at the transmitter to a decryption key stream at a receiver. The transmitter applies a portion of a fixed segment of the continuous encryption key stream to data to form an encrypted payload. At least a portion of a session count is combined with the encrypted payload to form an encrypted data packet. The receiver decrypts the encrypted data packet by applying a portion of a current fixed segment of a continuous decryption key stream to the encrypted payload if the difference between a received session count and locally generated session count is less than a threshold. Otherwise, the packet is discarded and the system is reset. Since fixed length segments of the encryption key streams are dedicated to each packet, synchronization of the key streams is maintained even if synchronization for a particular packet is lost.